



# ANNUAL REPORT 2023



**Swiss  
Limbs**

Mobility now.



## *Dear SwissLimbs Supporter,*

It is with immense joy and gratitude that I write to share the extraordinary achievements we have reached as an organization over the years. Thanks to your invaluable support, SwissLimbs has made significant strides in the field of rehabilitation and assistance for amputees.

Since our beginning in 2017, we have carried out an impressive [47] missions, bringing hope and the possibility of healing to individuals who have faced the challenge of amputation. Through these missions, we have touched the lives of [30,618] patients, providing them with the necessary care for effective rehabilitation and an improved quality of life. These numbers reflect our ongoing commitment to reach those in need of our help, showing that our mission is making a meaningful impact on the communities we serve. Moreover, we have also dedicated a considerable number of hours to training. Over these years, we have invested [14,975] hours in training specialized technicians, equipping them with the skills needed to provide high-quality, adequate support to patients facing amputation or mobility limitations. This commitment to training has been crucial to ensure that affected individuals receive the best possible care and can overcome the physical and emotional challenges they encounter. In 2023, we continued to achieve remarkable results. During this year, we conducted missions in Rwanda, Mozambique, Uganda, and South Sudan, further expanding our impact and allowing a growing number of people to benefit from our services.

We devoted ourselves to training, further preparing technicians and enhancing their ability to adopt innovative solutions for amputee rehabilitation, equipping them with specialized skills to address the unique challenges of assisting amputees. The most

significant result of 2023 is the number of patients we rehabilitated. With great pride, we can say that we helped [30,618] people overcome the difficulties associated with amputation, offering them renewed hope and the possibility of a better life. This extraordinary outcome is the result of our tireless commitment to providing personalized care, cutting-edge technological solutions, and continuous support to patients and their families.

I would like to extend my heartfelt thanks for your consistent and generous support, which has made all of this possible. Without you, we could not have achieved these results or made such a difference in the lives of so many people. We will continue to work tirelessly to further improve and expand our impact on the amputee community. We ask you to continue supporting SwissLimbs, as together, we can make a difference and provide a better future for those facing the challenges of amputation and mobility limitations.

With deep gratitude,

Filippo Nishino





# INTRODUCTION

*SwissLimbs is a non-profit organization based in Switzerland, dedicated to improving the quality of life for individuals with disabilities through cutting-edge orthotic and prosthetic solutions. The organization primarily focuses on development projects in Africa and the Middle East, but its impact reaches globally. SwissLimbs is committed to providing innovative solutions that combine advanced technology with personalized care for each patient.*

*SwissLimbs' mission is to revolutionize the orthotic and prosthetic sector by making innovations accessible to all who need them, regardless of their socioeconomic status. The organization is committed to training and empowering local technicians, providing affordable prosthetics and orthotic equipment in developing countries.*



# MAIN ACTIVITIES

## Construction of Healthcare Infrastructure

SwissLimbs builds and rehabilitates hospitals, orthopedic workshops, and physiotherapy centers, entrusting these facilities to local professionals to ensure long-term sustainability. These facilities provide essential care for people with disabilities who would otherwise lack access to such services. The organization collaborates with local experts to ensure that the facilities are designed to meet the specific needs of both patients and the community. This includes implementing advanced technological solutions, such as 3D printers and CNC milling machines, to produce customized prosthetics.

## Development of Orthotic and Prosthetic Processes and Products

SwissLimbs develops high-quality, customized orthotic and prosthetic solutions specifically designed to meet the needs of developing countries. These solutions include transtibial and transfemoral prosthetics, myoelectric hand prosthetics, and 3D-printed orthopedic solutions. The organization invests in research and development of new products and materials, using cutting-edge technologies like CAD/CAM and 3D printing. These innovations enable SwissLimbs to provide accessible and effective orthotic and prosthetic solutions, significantly improving the quality of life for patients. Additionally, SwissLimbs is committed to sharing its findings and technologies with other non-profit organizations and commercial partners, contributing to a broader, lasting impact.

## Training of Specialized Technicians

SwissLimbs invests in the training of local technicians and specialists in the latest orthotic and prosthetic technologies. The organization values education and the importance of adapting technologies to local needs so that professionals can benefit from new skills and innovations. SwissLimbs' training programs include both theoretical and practical lessons, focusing on advanced technologies such as 3D printing, CAD/CAM, and digital modeling. Participants learn how to design, create, and customize prosthetics for patients, ensuring high-quality, tailored solutions. SwissLimbs also offers ongoing support to trained technicians, maintaining a network of professionals who can share knowledge and skills to improve the services offered.



# MAIN PROJECTS

## MISSIONS IN UGANDA

### Training at the Orthopedic Center at Arua Regional Hospital

*Between May 8 and 12, 2023, AVSI and SwissLimbs collaborated to organize a refresher course for three prosthetics and orthotics technicians from the Regional Referral Hospital in Arua. The training took place at the New Hope Rehabilitation Centre in the Yumbe district of Uganda, aiming to enhance the skills of the staff involved in the production and management of prosthetic and orthotic devices, ensuring improved care for amputee patients, both local and from refugee settlements.*

### Training Objectives

The primary objective of the course was to provide in-depth technical updates for the staff of the regional orthopedic workshop in Arua. This training followed a previous workshop held in March 2020 and was designed to further develop staff capabilities in assisting primary and secondary amputees, thereby improving access to high-quality prosthetic services. The initiative was crafted to meet the growing needs of the local community and refugee populations, ensuring that healthcare staff can provide high-level, sustainable support over time.



## Training Activities

The training was conducted through a series of practical sessions led by Emmanuel Kalanzi, an expert with extensive experience in prosthetics production. Course activities included a detailed analysis of the specific needs of patients, the fabrication of customized prosthetics, and their adjustment, with particular attention to material quality and precision. Throughout the week, the technicians treated eight patients, including two women and six men. Of these, five patients were discharged by the end of the course with functional prosthetics that significantly improved their mobility and quality of life. The hands-on approach enabled technicians to acquire new, directly applicable skills, enhancing the center's capacity to meet amputees' needs effectively and promptly.

## Impact on Beneficiaries

Feedback from beneficiaries highlighted the significance and value of this training, not only for the technicians but especially for the recipients of the prosthetics. Among the moving stories:

- Ejaa Kizito, a seven-year-old boy from Arua, received a prosthesis after losing his right leg due to a fracture complicated by gangrene. His mother, Brenda, expressed profound gratitude, saying, "I am thrilled that my son can walk again on his own legs." The new prosthesis has given Kizito the chance to return to a normal, active life.
- Joseph Taban, a 48-year-old man from Sudan, received a prosthesis after a gunshot wound resulted in a leg amputation. Prior to receiving the prosthesis, Joseph relied on crutches, which caused him severe discomfort. After receiving the prosthesis, he shared, "This new leg will help me walk. The crutches I used were very painful under my arm." The prosthesis has significantly improved his independence and daily comfort.
- Margaret Poni, a 62-year-old woman from Sudan, received a replacement prosthesis for the one she had initially received during the 2020 training, which had worn down due to stump atrophy. Poni lost her leg to a landmine and remarked, "My first leg allowed me to stay mobile and keep farming while I lived in the settlement. I am glad that, although it wore out, I now have another." Her new prosthesis will enable her to continue working and supporting her family.
- Matata Malis, aged 57, from South Sudan, received a second prosthesis after losing his left leg above the knee due to a gunshot wound. Malis emphasized how his first prosthesis enabled him to return to working in the fields to support his family. With the new prosthesis, he stated that he looks forward to resuming his agricultural activities: "This new prosthesis will allow me to work even more for my family."

## Conclusions

The refresher course organized by AVSI and SwissLimbs has had a substantial impact on both participating technicians and treated patients. Thanks to the deepening of technical skills, the staff of the orthopedic workshop at the Arua Regional Referral Hospital will now be able to provide increasingly efficient and qualified services to a growing number of amputees in the region, improving their access to functional, customized prosthetic solutions. Beneficiaries' testimonials confirm the immense value of these initiatives, showing how access to appropriate prosthetic devices can transform lives, restoring not only mobility but also dignity and independence. Continued investment in technical staff training is therefore essential to ensure a lasting and sustainable impact, helping to significantly improve the quality of life in the Arua region and surrounding communities, including refugee settlements.



## MISSION TO MOZAMBIQUE

From April 10 to 14, SwissLimbs conducted a dedicated mission on advanced rehabilitation techniques at the Pequena Obra de Dom Orione in Maputo, Mozambique. The objective was to provide rehabilitation devices, postural support, and assistance to 40 children and youths with severe disabilities. The organization collaborated closely with local staff to ensure that each device was tailored to the specific needs of each patient.

This project made a significant impact on the quality of life for the children and youths receiving care. SwissLimbs also worked with local healthcare staff, offering ongoing training and support to enhance their skills in providing high-quality care to patients with neurological disabilities.





## MISSION TO RWANDA

From August 28 to September 1, SwissLimbs organized a training mission at the HVP Gatagara Gikondo Center in Kigali, Rwanda. The SwissLimbs team trained 15 orthopedic technicians on CAD/CAM 3D technology and low-cost monolimb prosthetics, restoring mobility for 15 patients.

The organization also provided a complete set of new machines, tools, and supplies to enhance the efficiency of producing orthopedic insoles and prosthetics. This effort had a positive impact on the patients' quality of life and helped strengthen the capabilities of local technicians.

During this mission, SwissLimbs worked closely with the HVP Gatagara Hospital to ensure that new technologies were effectively integrated into the existing healthcare system. The organization also collaborated with the Rwandan Biomedical Committee to exchange ideas and discuss potential future projects.



# COOPERATION & DEVELOPMENT PROGRAMS

SwissLimbs, in collaboration with local partners, supported six students from SUPSI who completed a three-month training internship. Four students worked in Uganda, while two completed their internships in Mozambique. These students had the opportunity to work closely with local professionals, contributing to training and community development while gaining valuable practical experience.

## Testimonial from the Obra Dom Orione Internship

Our three-month internship as occupational therapy students from SUPSI at the Obra Dom Orione Center in Maputo, Mozambique's capital, was a journey that profoundly transformed our understanding of disability, teamwork, and life itself. The center provides care for children and youth with moderate to severe disabilities, whose families are unable to offer them necessary support.

Working with the children at the center posed a unique challenge. Many do not communicate verbally, which initially made it difficult to establish a connection. However, over time, we learned to interpret their gestures, sounds, and glances, developing a new sensitivity that allowed us to better understand their needs and desires. This experience taught us the power of non-verbal communication and helped us refine skills that have proven essential, both professionally and personally.

At the center, we collaborated with a multidisciplinary team including orthopedists, physiotherapists, nurses, social workers, cooks, caregivers, and psychologists. Everyone was committed to improving these children's quality of life, and our role focused on sensory integration, posture, and the development of motor and cognitive skills. Our goal was to enable them to participate in the center's daily activities, a milestone we witnessed materialize in several children, including Manuel.





Manuel is a young man with cerebral palsy, a condition that prevented him from participating in even the simplest activities of daily life. We still remember the joy we felt when, at the end of the three months, thanks to the work we had done, Manuel began to eat and use the bathroom independently. For us, this was one of the greatest successes, a testament to the power of perseverance and dedication. Witnessing Manuel's progress was incredibly rewarding, an experience that profoundly impacted our journey and made us aware of how, at times, small milestones can have an immense impact.

Our stay in Maputo was not only a professional challenge but also a cultural immersion. Initially, the language barrier and cultural differences tested us. However, over time, we managed to build deep relationships with the team and the local community, creating friendships that allowed us to participate in local events, such as soccer matches, beach outings, theater performances, birthdays, and even funerals. These experiences revealed the extraordinary cultural richness of Mozambique, including its music and dance, which we eagerly attempted, albeit with little success.

It was undoubtedly a challenging experience, both emotionally and physically, but at the same time profoundly meaningful. We cherish every smile, every small progress, and every challenge faced together with those extraordinary children. Mozambique, with its people and culture, has left an indelible mark on our lives, and we are sure that everything we learned there will continue to guide us both personally and professionally for the rest of our days.



*Chiara e Debora*

### Testimonial from Uganda 2023

Hello everyone! We are Anastasia, Gaia, Lee Anne, and Stéphanie, three nurses and a physiotherapist. Last year, we had the incredible opportunity to do our third internship in Uganda thanks to an international cooperation project with SwissLimbs. We have always wanted to put our skills to use in service of others in contexts different from our own, and this experience allowed us to do so in a profound and meaningful way. For three months, we worked at a small rural hospital, the Gulu Regional Referral Hospital, in Gulu, a city in northern Uganda. The hospital was very different from what we were used to: limited equipment, a shortage of medicines, and a completely different approach to patient management and care than we experienced back home. Our days were intense, starting early in the morning and continuing until late afternoon. We collaborated with the local team to provide care to patients, especially in pediatrics, medicine, surgery, and physiotherapy.

The cases we encountered were very different from what we were used to: malaria, tuberculosis, HIV, malnutrition, and complex rehabilitation cases were the order of the day. We had to quickly learn how to manage emergency situations without the advanced technologies we have in our hospitals in Europe. This taught us the importance of adaptability and creativity in caring for people.

At first, it was challenging. We felt overwhelmed by the amount of work and structural difficulties.

There were moments when we questioned whether we could truly make a difference. However, over time, we developed a deep respect for the resilience of our colleagues and patients.

We experienced moments of great frustration, especially when we couldn't do enough for some patients due

to a lack of resources. However, we also experienced immense joy when we managed to save lives and saw improvements in younger patients. We will never forget the many smiles and the apwoyo (thank you) that the local people said to us to express their gratitude for our efforts.

Working in Uganda gave us a new perspective on the global healthcare system. We learned to manage our emotions, work under pressure, and utilize every available resource to the fullest. Additionally, we gained a greater awareness of how important equitable access to medical care is and how much work remains to be done in many parts of the world.

This experience also enriched our clinical skills: we encountered diseases that we rarely see in Europe and learned to collaborate with a local team. However, the greatest lesson was a human one: we understood the importance of solidarity, listening, and being present, even when resources are scarce.

Upon returning home, we realized how much this experience changed us. We feel stronger, more aware, and deeply motivated to continue working in healthcare, helping as much as we can by any means possible. We recommend this experience to anyone who wants to challenge themselves and discover the value of care in difficult contexts. In Uganda, we learned that even small gestures can make a big difference in people's lives.

We hope this testimony reflects the importance and depth of an experience like this! Thank you to SwissLimbs and SUPSI for this opportunity.



*Anastasia, Gaia, Lee Anne e Stéphanie*



# SWISSLIMBS TECHNICAL TRAINERS

SwissLimbs relies on a team of highly qualified and passionate technical trainers dedicated to the training and development of local technicians. Here are some of the technical trainers from SwissLimbs:



### Daniele Kläy

A certified prosthetist and orthotist with extensive experience in the orthopedic field and a strong passion for humanitarian causes. He works for Hepius Group at Ortotecnica, an orthopedic laboratory based in Lugano, Switzerland. Daniele serves as the technical director of SwissLimbs, responsible for overseeing and implementing training modules for CPOs (Certified Prosthetist/Orthotist).

### Francesca Cassano

An experienced physiotherapist committed to humanitarian causes and projects. She works as the physiotherapy director for the OTAF Foundation, which has been operating in Ticino for over a century, providing healthcare and social services to people with disabilities.

### Evita Tenka

A highly experienced physiotherapist passionate about humanitarian causes. She works as a rehabilitation specialist for the OTAF Foundation, delivering high-quality services to individuals with disabilities.

### Emmanuel Kalanzi

A certified prosthetist and orthotist with over 40 years of experience in the orthopedic field. Emmanuel is the SwissLimbs ambassador in Africa and is responsible for implementing training modules for CPOs in the field. He works for the AVSI Foundation in Uganda at the Regional Orthopedic Laboratory in Gulu.

### Hervé Schmidt

Active in the orthopedic sector since 1996, Hervé currently works as an orthopedic technician at Ortotecnica SA in Lugano. He graduated in 2001 and has a particular passion for computer applications in orthopedics. His mission in Rwanda was his third trip to Africa.

# BENEFICIARIES AND IMPACT

The missions of SwissLimbs have had a significant impact on beneficiaries, restoring their mobility and improving their quality of life. Here are some examples of beneficiaries:



Samuel Data   Age: 47   Nationality: Sudanese  
Condition: Bilateral transtibial amputee since 1985 due to a car accident.  
Impact: SwissLimbs provided not only prostheses and assistive devices but also emotional and psychological support, contributing to an increase in self-esteem and independence.



Faith Asio   Age: 17   Nationality: Ugandan  
Condition: Bilateral transtibial amputee since 2015 due to a congenital disease.



Lilian Doru   Age: 56   Nationality: Sudanese  
Condition: Right limb amputee since 2012 due to a car accident.



Julius Gilla   Age: 48   Nationality: Sudanese  
Condition: Left transtibial (unilateral) amputee due to an accident in his youth.  
Impact: During a mission, SwissLimbs provided Gilla with his first prosthesis, significantly improving his mobility.



Embati John   Age: 61   Nationality: Ugandan  
Condition: Left transfemoral amputee since 2020 due to diabetes.  
Impact: The prosthesis received during this mission is his first prosthetic limb.

SwissLimbs offered not only prosthetics and assistive devices, but also emotional and psychological support to patients, contributing to an increase in the beneficiaries' self-esteem and independence.

# WHAT THE TRAINEES SAID

The trainees who participated in the SwissLimbs training missions expressed satisfaction with the experience and the results achieved. Here are some testimonials from the trainees:



*Canikare Jangwen: Active in the orthopedics laboratory in Arua, he stated: "It was an opportunity to compare different categories of amputees compared to the first training. It was also a chance for us to share ideas with other technicians and learn new skills while appreciating how other technicians work in the prosthetic production processes."*

*William Ocitti: Orthopedic technician at the Arua Regional Referral Hospital, he stated: "The training allowed us to work with different machines used in the production of prosthetics, some of which we had never used before."*

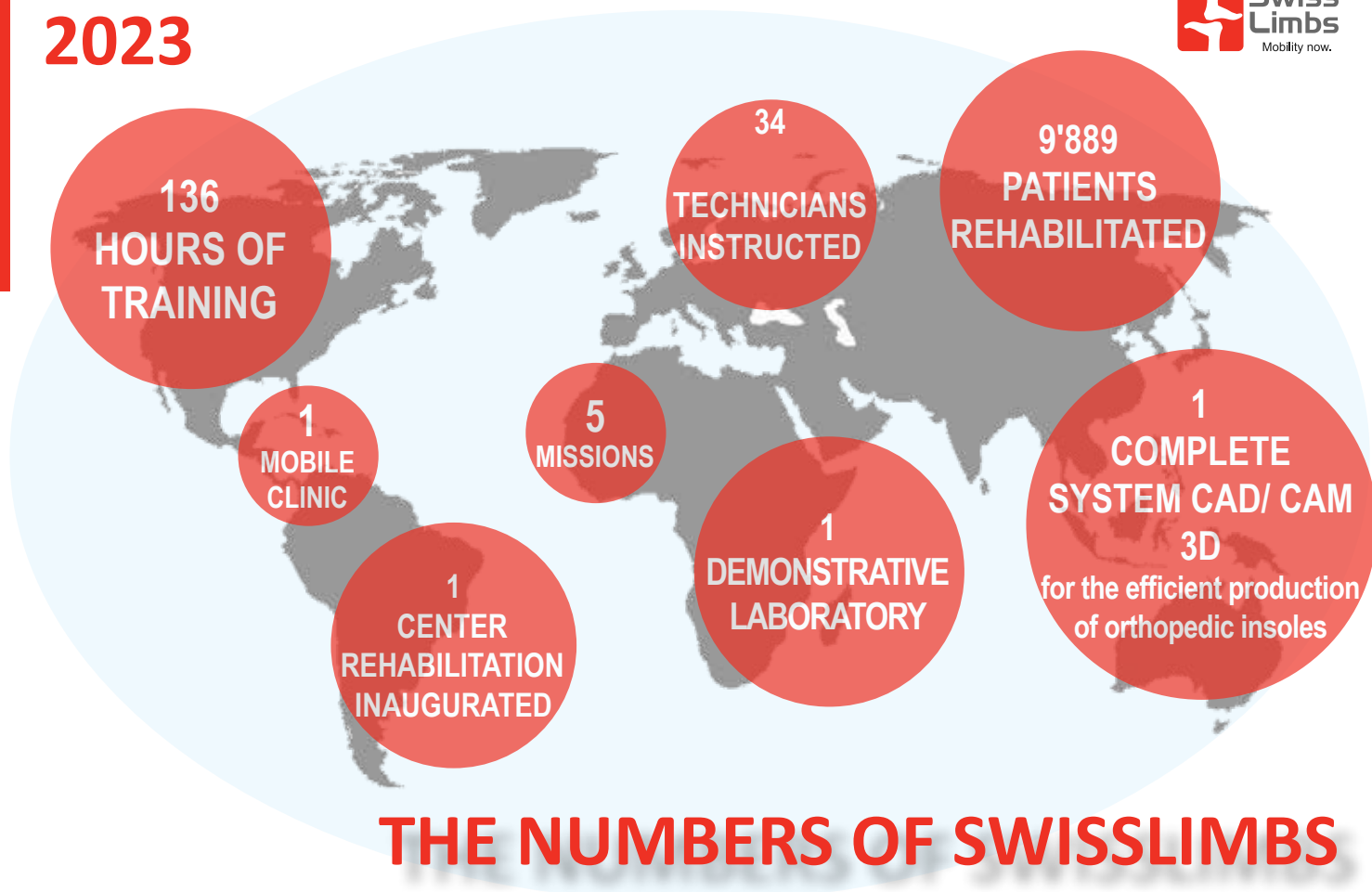


*Peter Acamun: Orthopedic technician at the Arua Regional Referral Hospital, he stated: "I am getting comfortable with the new technology. I like it because it uses fewer components compared to the technology we were using before, and with this new technology, it's easier for a primary user to adapt, and for us technicians to produce and discharge more clients in the shortest time possible."*

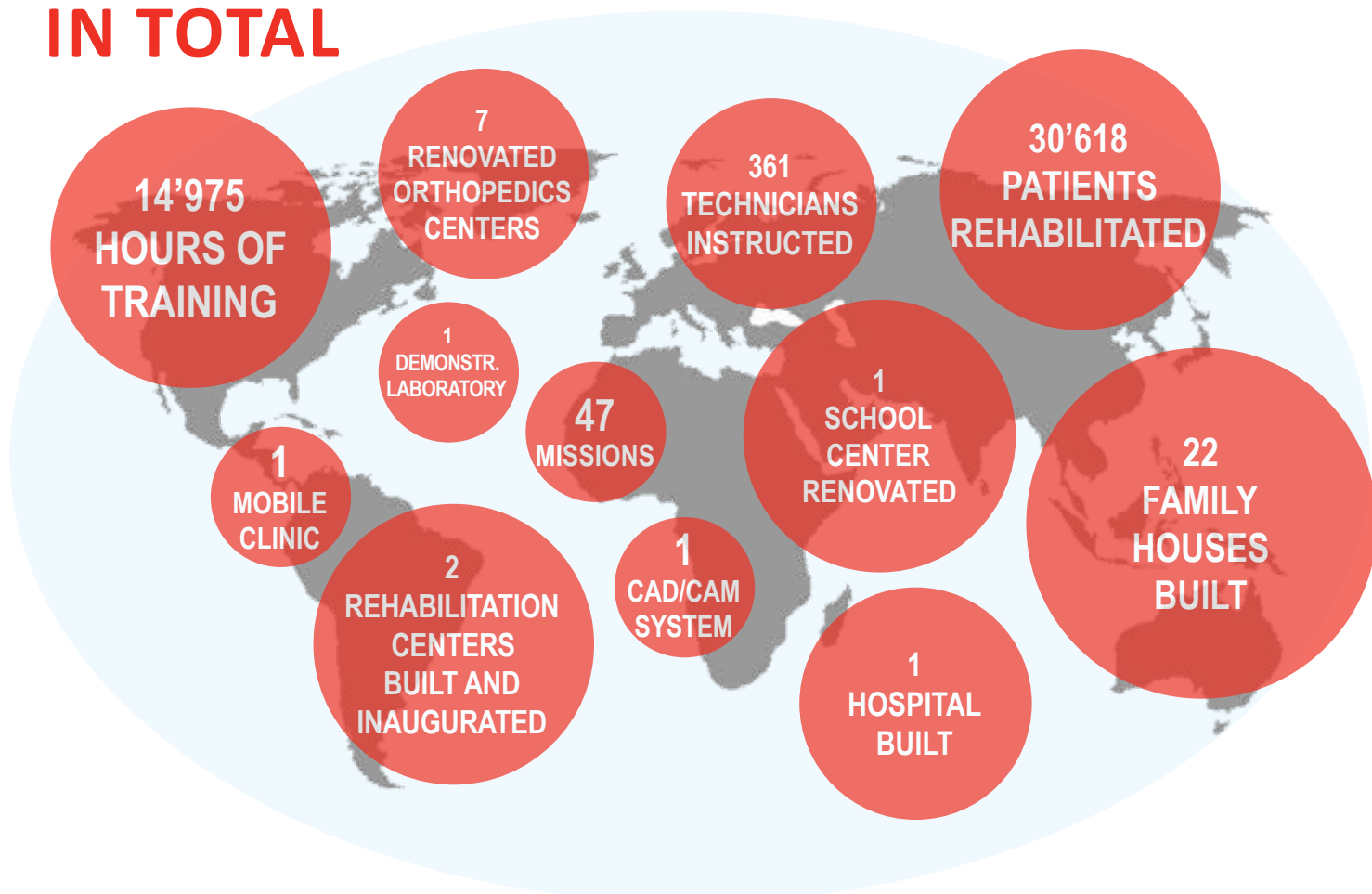
The testimonies from the trainees reflect the effectiveness of SwissLimbs' training programs and the positive impact on the skills of local technicians.



2023



IN TOTAL





# SUCCESSES, CHALLENGES AND FUTURE PLANS

## SUCCESSES

- **Successful Collaborations:** SwissLimbs has partnered with various nonprofit organizations, government entities, and commercial partners to expand its impact and reach more beneficiaries.
- **Training of Local Technicians:** The training of local technicians has ensured greater long-term sustainability, as trained technicians can continue to provide high-quality services in their communities.
- **Adoption of Advanced Technologies:** The adoption of advanced technologies, such as CAD/CAM 3D and 3D printing, has enabled SwissLimbs to offer innovative and efficient solutions.
- **Innovative Projects:** SwissLimbs has initiated innovative projects, such as the OffGridBox, which combine cutting-edge technologies to provide energy and clean water to local communities.

## CHALLENGES

- **Logistics and Access:** Logistical challenges and access to remote areas can make it difficult to provide orthopedic-prosthetic services and devices to those in need.
- **Funding:** Maintaining sufficient funding to continue carrying out missions and projects is a constant challenge.
- **Infrastructure:** The lack of adequate infrastructure in some areas limits the effectiveness of SwissLimbs' missions.

## FUTURE PLANS

SwissLimbs will continue to pursue its mission of improving the quality of life for people with disabilities through innovation, training, and collaboration with local professionals. The organization is committed to expanding its programs and reaching even more beneficiaries in 2024.



# GOALS FOR 2024

## *Geographical expansion*

SwissLimbs aims to expand its activities to other regions of the world, reaching more people with disabilities and providing them with assistance.

## *Technology improvement*

The organization will continue to invest in new technologies and materials, such as 3D printing, to improve the quality and accessibility of orthotic and prosthetic devices.

## *Continuing Education*

SwissLimbs will continue its training programs for local technicians, ensuring that these professionals can continue to provide high-quality care to patients.

## *Global Collaborations*

The organization will seek to establish new partnerships with universities, research institutions, and other NGOs to develop innovative solutions and share knowledge and expertise.

## *Pilot projects*

SwissLimbs will launch new pilot projects in strategic areas to test new technologies and approaches, with the aim of broadening its global impact.



# Thank you

*We thank all the donors and supporters of SwissLimbs  
for their continued support and commitment to our cause.*

*Thanks to you, we have been able to make a difference  
in the lives of many people with disabilities around the world.*

*Your support allows us to continue pursuing our mission  
and to expand our impact in the future.*

*We are grateful for your generosity and dedication to our work.*

*Thank you!*



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